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QUALITY CIRCLES, TQM AND LEARNING ORGANIZATIONS**

BY

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WHAT LEADERS SHOULD KNOW ABOUT QUALITY CIRCLES, TQM AND LEARNING ORGANIZATIONS

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ABSTRACT

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For the past two decades, leaders in the public and private sectors have experimented with a series of management innovations to empower the work force and improve performance within the organization. Three key concepts have emerged. The *quality circle* (QC) movement was first introduced in the early 1980's to increase productivity, improve quality, and more actively involve the work force in decision-making. A few years later, *Total Quality Management* (TQM) introduced new tools and methods to effect organizational change. One of the latest evolutionary concepts of the 1990's is the *learning organization* (LO).

QCs, TQM and LOs represent methods, tools and ideas to help strategic and operational leaders guide their organizations. The key is understanding the theory and how to apply it. *Accordingly, leaders should know how QCs, TQM and LOs evolved, how they work, and how they can be part of a vision to enhance organizational change to meet the challenges of an uncertain future.* Those that do will increase their chances to successfully lead their organizations through the increasingly competitive and dynamic environment of the twenty-first century.

I. Introduction

Figuring out the right thing to do in an environment of uncertainty caused by intense competitive activity, and then getting others, often many others, to accept a new way of doing things demands skills and approaches that most managers simply did not need in the relatively calm 1950s, 1960s, and early 1970s. It demands something more than technical expertise, administrative ability, and traditional (especially bureaucratic) management. Operating in the new environment also requires *leadership*.¹

(John P. Kotter, The Leadership Factor)

Strategic and operational leaders in both the public and private sectors face increasing complexity as they move their organizations into the twenty-first century. American security interests are more diversified as the world moves from East-West confrontation to a myriad of political, ethnic and humanitarian concerns. American economic interests are becoming more global as markets diversify, with breakthroughs in biotechnology and digital electronics coming from such unexpected places as Israel, Malaysia, and China.² The competitive environment is one where leaders and workers struggle to comprehend the rate of change.

History shows that no organization or government is a monolith impervious to external influences. One third of the firms listed in the Fortune 500 in 1970 had vanished by 1983 because they could not cope with change.³ Arguably, the Soviet Union's economic and military might collapsed with the fall of the Berlin Wall because its leadership did not understand the systems that influenced their society and the international environment. In other words, these great powers did not *learn* to survive in a competitive environment.

Review of the literature reveals that for the past two decades, leaders in the public and private sectors have experimented with a series of management innovations designed to empower the work force, improve performance, influence culture, and position their organizations to weather periods of dramatic change:

- *Quality circles* (QCs) were first introduced in the early 1980's to increase productivity, improve quality, and more actively involve the work force in decision making. Both private and public sector organizations have utilized these small groups of workers to solve problems and improve employee participation.

- *Total Quality Management* (TQM) arrived in the mid-1980's and was a successor concept built upon the structural changes created by the quality circle movement. TQM introduced new tools and methods to effect organizational change and enfranchise the work force.

- *The Learning organization* is the new concept for the 1990's. A learning organization is one that incorporates the most successful features of the quality movement. According to Peter Senge, the best-selling author who introduced the concept, a learning organization innovates in its infrastructure, applies theories and tools to effect change, shares information, and establishes the guiding ideas necessary to energize and direct organization-wide improvement.⁴

The aim of this paper is to introduce leaders to the QC, TQM and learning organization concepts, and discuss their applicability for the future. Attention is initially given to the role of the leader in an organization and a historical overview of employee involvement. Next, quality circles are examined in detail to lay the foundation. The discussions of TQM and learning organizations that follow are part of a natural progression in modern management theory. I hope to lead inevitably to a conclusion that each of these concepts has methods, tools, and ideas to help strategic and operational leaders to set a course for their organization, *and that leaders should know how QCs, TQM and LOs can be part of a vision to enhance organizational change to meet the challenges of an uncertain future.*

II. The Role of the Leader in an Organization

Edgar Schein described leadership as the creation and management of culture.⁵ In his view, leaders impose their own values and assumptions on the organization, frequently check the azimuth, and make corrections to define the culture. Peter Drucker said that effective leaders influence organizational culture to position their organizations for success.⁶ Warren Bennis described the leader as an agent of transformational change and "one who commits people to action, who converts followers into leaders, and who may convert leaders into agents of change."⁷ Each of these well-respected authors underscores the importance of leadership as the genesis of organizational change. While there is no generally accepted definition of leadership, it is clearly a process of moving a group toward organizational goals, hopefully through non-coercive means.⁸

If these authors are correct, it is easy to see why QC_s, TQM and learning organizations have appealed to strategic and operational leaders. There is clear applicability of the learning disciplines to increase worker participation and enhance productivity. Each of these methods have offered to fulfill the goals that leaders have for their organizations -- to establish direction (vision), to align people, and to motivate and inspire them to create change and to become more competitive.⁹ QC_s, TQM and learning organizations hold great promise as management tools, but as John Kotter has noted, as the amount of change and complexity of the operation increase, so does the requirement for *both* leadership and management skills. Kotter's analysis of leadership in relation to change and complexity illustrates this point.¹⁰

Leadership Requirements In Relation to Change & Complexity

Amount of Change Needed (due to environ. instability, rapid growth, etc.)	High	Considerable leadership but not much mgmt. (Startup businesses)	Considerable leadership and management reqd. (Most organizations today)
	Low	Little management or leadership required (Most organizations until this century)	Considerable management but little leadership reqd. (Many successful corp. in the 1950s and 1960s)
	Low	Complexity of the Operation (due to size, technology, geographical dispersion, etc.)	High

We are presently in an era of high complexity and great change, where considerable leadership and management are required. This requires leaders at all levels to stimulate creativity, empower employees, and encourage learning. It requires the streamlining of organizations and the elimination of bureaucracy, with a free flow of information from top to bottom. Various organizational designs are still taking form, but a number of prototypes have been developed. As this restructuring occurs, the leader must impart the vision that will hold the organization together. QC's, TQM and learning organizations represent a means for employee involvement to achieve the desired ends, but it is the leader's vision that will ensure their successful employment. To better understand each concept and its potential, it is worth reviewing the historical evolution that has resulted in many of these contemporary themes and ideas.

III. A historical context for employee involvement

In many respects, leaders of organizations have grappled with organizational problems and leadership issues for centuries. Contemporary writings on organizational and management theory have flourished primarily in the past one hundred years, beginning with the large migrations of workers into

American cities and the rise of the industrial revolution. Frederick Taylor, the father of scientific management theory, wrote in the early 1900's of his methods to gather and classify worker knowledge to develop rules for work processes.¹¹ While Taylor clearly emphasized that the purpose of this information was to give management more control, he nonetheless recognized the value of soliciting worker knowledge to improve efficiency.

Following World War II and into the 1950's, a new wave of neo-classical writers began to question aspects of the scientific management approach. Philip Selznick viewed organizations as cooperative systems, where management benefited from worker participation in the *leadership or policy-determining structure* of an organization.¹² Selznick advocated more of a partnership between labor and management to solve the problems of the organization.

From the 1950's until the 1980's, leaders in both the private and public sector recognized that they needed more flexibility and cooperation in their approach to remain competitive in the world marketplace.¹³ This led to several participative management techniques, including job redesign and enrichment programs,¹⁴ management by objectives,¹⁵ and quality of work life approaches. Many of these programs focused on production and efficiency issues, while others concentrated on worker attitudes and motivation. All were attempts to improve productivity and quality to remain competitive in the world marketplace.

In the early 1960's, the Japanese developed quality circles in response to a terrible reputation for quality in manufacturing. The Japanese government made quality a national priority, emphasizing W. Edward Deming's lectures on statistical methodology and J.M. Juran's courses on management of quality control.¹⁶ The Japanese began teaching quality control techniques to both management and

hourly employees. The process was formalized into the quality circle concept in 1962 as a means to recognize, develop and utilize worker intellectual potential to improve productivity and increase job satisfaction.¹⁷ The concept of quality circles then spread to the United States, where it was first tried by the Lockheed and Honeywell corporations in the mid-1970's.

Due to the success of Japanese manufacturing, and the low productivity of US firms in the 1970's, quality circles became identified as the reason for the Japanese success. They proliferated rapidly in the US and by 1985 ninety percent of America's Fortune 500 companies employed some form of quality circle.¹⁸ Management in both the private and public sectors realized that the quality circle approach held promise for potential production efficiencies and monetary savings.

One initial US concern with this concept stemmed from the differences in the Japanese and American work cultures. Japan's paternalistic culture was built on Confucian teachings stressing group primacy and a dependency between supervisor and subordinate.¹⁹ Japanese unions also characteristically enjoyed good relationships with management. It was feared that the American culture and work norms might not be compatible with the QC methods employed in Japan. QCs were also initially opposed by American unions because they feared that such cooperative programs might reduce union influence²⁰. Despite these concerns, QCs rapidly rose to prominence in American business and government.

Throughout the 1970's and into the 1980's, the quality circle concept evolved as tenets of TQM began to emerge. This created variations on the quality circle theme: task teams or process action teams were created to address directed goals as opposed to QC team goals;²¹ self-managed work teams began to exercise total control over work schedules, team assignments, and task development; and

cross-functional teams solved problems on a functional, rather than hierarchical basis.²² In each of these formulations, leaders of organizations attempted to empower the worker and create a framework for increased employee involvement and performance across all areas of endeavor.

IV. Quality Circle Design and Process

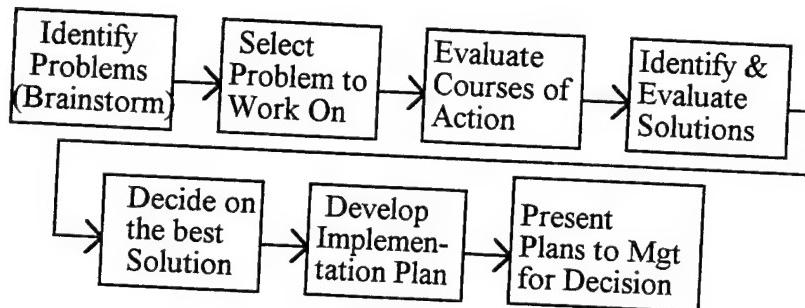
The QC concept assumes that workers who are involved in planning and decision-making will improve quality, be better motivated, and improve the bottom line for the organization.²³ The introduction process generally involves four steps:

- *Consultants usually introduce the concept* to top management to inform them of the techniques and potential gains. After approval of the concept and allocation of time by management, all levels of the organization receive training.
- *Leaders reassure the employees* that quality circles will not threaten their jobs because they are designed to benefit everyone in the organization.
- *Leaders create the structure* for the quality circles, consisting of a coordinator or steering committee, one or more facilitators, and a 5-15 person group comprised of volunteer QC leaders and members.²⁴ *Coordinators and steering committees* serve as the executive policy-making group, but do not become involved in the day-to-day activities.²⁵ *Facilitators* actually implement the program, train leaders and members in problem-solving techniques, and monitor group dynamics.²⁶ *Quality circle leaders* are generally foremen or supervisors, but can be lower-level workers who exhibit the ability to conduct circle meetings. *Circle members* are participants who meet weekly to identify problems, analyze them and propose recommendations to management.²⁷ The problems they work on are usually related to quality, efficiency, plant layout, cost reduction and safety.

- *The group clearly identifies its goals.* These goals include productivity and quality improvement goals, and reduction of defects, waste, downtime, and work redundancy. They also address employee involvement in the process in order to increase self-fulfillment, motivation and improve work conditions.

Once the quality circle is fully developed, the group follows a series of procedures to work through problems and bring them forward to management. These processes are illustrated in the work-flow diagram shown below:²⁸

Quality Circle Process



The self-directed team concept found in TQM literature is similar in construct. The major difference is the relative autonomy of the team, the expanded scope of its responsibility, and the fact that the team is allowed to implement its proposals with minimal supervision or approval by management.

V. Quality Circle successes

Within Japan, the years from 1962 to 1990 saw explosive growth in the number of circles and participants in the QC process. In 1962, only 23 circles and several hundred participants were registered with QC Headquarters in Japan; by 1990 the number of circles had climbed to 313,294 with almost 2.5 million participants.²⁹ Similar growth occurred in the United States in the early 1980's as

evidenced by the number of corporations adopting quality circles and the hundreds of magazine and journal articles written on the subject.

The results of research on the effects of quality circles in the private sector yielded interesting results. In a 1986 review of several hundred quality circles, it was noted that 48% reported positive results from the effort, 27% reporting mixed or insignificant results, and 24% reporting negative or cost-ineffective results. The areas that seemed to benefit most from QC's were *employee attitudes* about the organization, their influence within the organization, and their satisfaction and commitment. *Productivity results* were mixed.³⁰

In a major study done of Japanese corporations, nearly 70% of Japanese workers were clearly satisfied with their circles. They reported greater problem awareness (36.5%), improvements in productivity (24%), better human relations (23%), and improvements in worker capabilities (10%).³¹ In another cross-organizational study of quality circles in five different industries (a bank, utility, manufacturing plant, hospital and university), results included clear reductions in absenteeism and turnover in comparison to non-QC control groups.³²

Another interesting outcome of the quality circle phenomenon was the acceptance and eventual support of the concept by the American unions who were initially against them. The National Association of Manufacturers, representing over 85% of US manufacturing output, and the Labor Research Review issued strong endorsements of employee involvement in QC's.³³ Management and labor relations also improved with QC introduction, although this was not the primary reason for initiating quality circles.³⁴

In the *public* sector, the United States rapidly adopted quality circles in the late 1970's, primarily in the Department of Defense. By 1984, almost 2000 quality

circles had been established within DOD, with over 80% of quality circle solutions accepted and implemented. Results included savings of \$700,000 per year at the Norfolk Naval and Air Rework Facilities alone due to improvements in tool handling and work procedures. It was estimated that the government saved from \$4 to \$28 for each dollar invested in the quality circle program. QC's also produced increased job satisfaction and worker pride, and reduced absenteeism.³⁵

In a 1988 study assessing behavioral outcomes from quality circles on a US Air Force base, surveys indicated that QC's enhanced personal and organizational goals, interpersonal trust, and employee retention.³⁶ Likewise in a study of the Social Security Administration, 96% of the employees involved in QC's experienced improved motivation, productivity, and quality.³⁷ Part of this success may have been attributable to the strong management involvement and support characteristic of these types of public sector organizations, but the impact of QC's on employee attitudes and performance was clearly positive.

VI. Quality Circle criticisms

The greatest *criticisms* of quality circles stemmed from their high failure rate and the fact that they did not revolutionize industry and government in the US as expected. Failure rates approached 30% in Japan and nearly 60% in the US within two years of their inception. In fact, Lockheed, the first company to adopt this concept, abandoned it.³⁸ The primary reasons for failure were poor training, organizational resistance, and a lack of management commitment. Those that succeeded seemed to be most effective between 6-18 months after their creation.³⁹

Lawler and Mohrman, in a 1985 Harvard Business Review article,

developed a QC Life Cycle Model which examined the typical phases in a quality circle's life, and the destructive forces that usually precipitated their demise.

The Quality Circle Life Cycle Model ⁴⁰

<u>Phase</u>	<u>Activity</u>	<u>Destructive Forces</u>
Startup	Publicize QCs Obtain funds/volunteers Train employees	Low volunteer rate/Inadequate funding Inability to learn group process and problem-solving skills
Initial Problem-Solving	Identify and Solve Problems	Disagreement on problems
Approval of Initial Suggestions	Present and have initial Suggestions accepted	Resistance by staff & middle mgmt. Poor presentations/limited knowledge
Implementation	Relevant groups act on suggestions	Prohibitive cost Resistance by groups that must implement
Expansion of Problem-Solving	Form new groups Old groups continue	Member/non-member conflict Raised Aspirations/Lack of Problems
Decline	Fewer groups meet	Rewards wanted but not realized Cynicism about program Burnout

Within each phase, they identified a number of activities essential to the success of the circles. The destructive forces they described are those that have been observed in the majority of quality circle efforts that have failed. Their model is considered the definitive critique of the QC process, and leads to several lessons that leaders can draw from the QC experience.

VII. Lessons for Leaders from the QC experience

Leaders should understand that QC success depends on effective training of participants,⁴¹ open and trusting communications between workers and management, a focus on organizational goals,⁴² and reasonable expectations of

what quality circles can produce in the first six months of their existence. QC's will not solve every problem, and they should not be run as small-scale experiments that are easily abandoned if initially unsuccessful.⁴³

Leaders who desire to take advantage of this concept should use the following 12-step process to make quality circles more effective:⁴⁴

- 1) *Get management commitment* -- essential if the effort is to succeed.
- 2) *Assess the organization* to make sure it is ready for quality circles.
- 3) *Select objectives* -- are the circles designed to increase productivity? Improve worker satisfaction? Decrease costs?
- 4) *Prepare and train middle managers and supervisors* to reduce the perceived threat to their status in the organization.
- 5) *Select and train facilitators* to act as the link between workers and management, and to train group members in the process.
- 6) *Inform employees and ask for volunteers* to ensure commitment and knowledge of the mission.
- 7) *Train circle leaders* since this will be a new role, requiring new skills.
- 8) *Train participants* in both decision-making and group process skills.
- 9) *Set goals and boundaries* to give the group purpose and direction.
- 10) *Give circles time to establish roles*, thrash out conflicts and cohere.
- 11) *Recognize and implement* -- try to recognize the group for its work.
- 12) *Evaluate quality circles* against their goals, their monetary success, and on whether participants are eager to maintain the circles.

To summarize, the Quality Circle movement was an innovative method to allow greater worker participation, improve productivity, and influence the organizational culture, but experienced high failure rates due to a lack of vision and understanding on the part of leaders. As a result, TQM emerged with a new philosophical orientation and a slightly larger role for the organizational leader.

VIII. The evolution to TQM

The Total Quality Management concept emerged in the mid-1980's as the evolutionary next-step in the progression of thought about worker-management relationships. Its goal was increased competitiveness by focusing on quality and customer satisfaction.⁴⁵

Since its introduction, TQM has been embraced as a solution to persistent trade deficits and a lack of American quality competitiveness in the international marketplace. The Malcolm Baldridge National Quality Improvement Act of 1987 (Public Law 100-107) was a significant step to increase awareness of TQM at the National level. By establishing the US National Quality Award, the government annually showcases companies with excellent quality programs.⁴⁶ President Clinton's "re-inventing government" initiatives also embrace TQM tenets. Advocates of TQM say it corrects the problems experienced by quality circles in several important ways: *participation is mandatory* for every member of the organization; *quality teams consist of employees from all levels of the organization*; *teams are focused on key issues selected by the corporation*; and *TQM is customer focused*, rather than internally directed.⁴⁷ In some ways it is the logical progression of the quality circle concept. The primary tools of TQM include benchmarking (comparing the organization against known standards of excellence within an industry), measuring productivity through the collection of data, certifying quality according to worldwide standards, and re-engineering and rethinking design, production and delivery processes.⁴⁸

Within the government, DOD and other cabinet agencies have achieved only limited success within a number of narrow applications such as the medical field, some logistics areas, and certain administrative applications. The initiatives

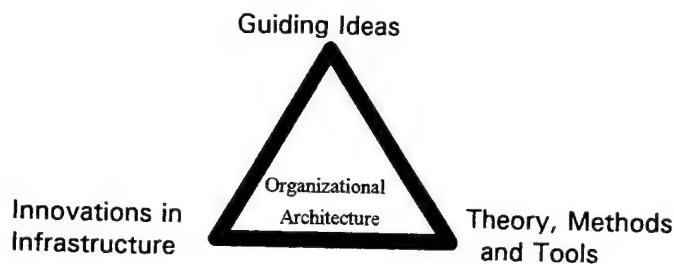
to re-invent government have also been watered down despite efforts to implement them through executive order, regulations, and legislation.⁴⁹ In some respects, TQM has thus far mirrored the successes and failures of the quality circle experience for a number of reasons. Since participation is mandatory, rewards and incentives must be introduced to keep workers interested. TQM also requires a complete shift in the corporate culture toward the *customer*. TQM also forces management at all levels to give up control within the organization because it decentralizes planning and decision-making. Some highly structured corporations or government entities have not been able to accept this type of change. That is why leaders must carefully assess the organization and its goals to ensure that the methods and tools of TQM are compatible with the corporate culture.

In many ways, the verdict is still out on the long-term viability of TQM. Some organizations have claimed that it has revolutionized their operation and saved them from extinction. Others have reported weak or indifferent results from the application of TQM principles. Meanwhile, another concept has emerged, that of the learning organization which claims to integrate the best features of the quality movement with the visionary leadership required in an environment of great change. It is an intriguing composite of ideas that may quickly prove worthwhile.

IX. Principles of the Learning Organization

The latest evolution in the progression of management theory is the learning organization, which has been heralded as the natural progression of the quality movement. Peter Senge, author of the best-selling The Fifth Discipline, and The Fifth Discipline Fieldbook suggests that quality circles provided the *organizational structure* for team learning, and the TQM movement provided the

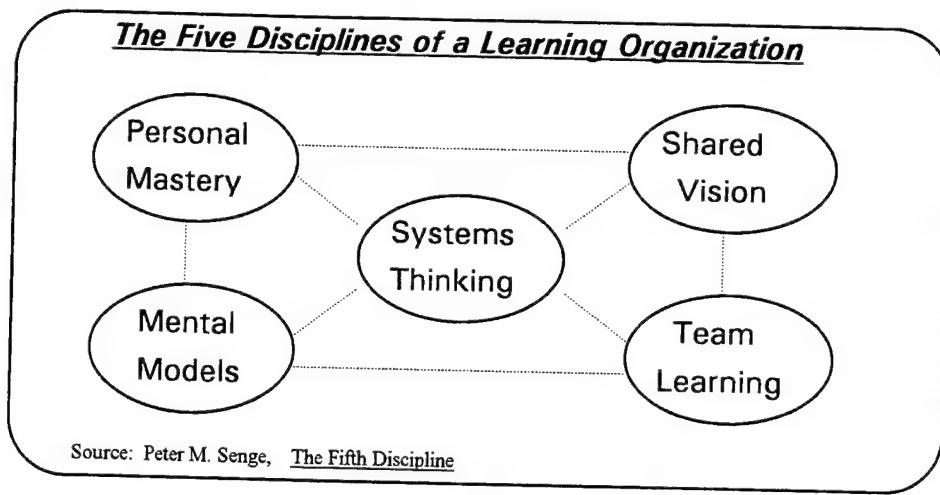
theory, tools and methods that were the groundwork for change. A learning organization is one that incorporates the most successful features of the quality movement. It orients on the core aspects of its business, understands the systems that influence it, and positions itself for strategic success and long-term viability. It is capable of reflection and dialogue and shares knowledge with all its employees. A learning organization innovates in its infrastructure, applies theories and tools to effect change, and establishes the *guiding ideas* necessary to energize and direct organization-wide improvement. This architecture is illustrated below.⁵⁰



Source: Peter M. Senge, et al., The Fifth Discipline Fieldbook

According to Senge, a learning organization is "*a group of people continually enhancing their capacity to create what they want to create, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together.*"

Senge freely acknowledges that the quality movement "is about learning" and the process of learning, but that previous methods have not explicitly outlined the disciplines needed to transform the organizational culture, and thus the organization.⁵¹ There are five interrelated disciplines in a learning organization:



- **personal mastery** is the discipline of continually clarifying and deepening personal vision, of focusing energies, of developing patience, and of seeing reality objectively.
- **mental models** are necessary to envision alternative ways of thinking about the world to expose our thought processes to the influence of others.
- **shared vision** is the development of shared "pictures of the future" that foster genuine commitment and enrollment rather than compliance.
- **team learning** is a method to develop dialogue and overcome defensiveness and other patterns of interaction that keep members from learning, both individually and as a team.
- **systems thinking** is the integrating discipline of the five and is a method to see the 'invisible fabrics of interrelated actions, which often take years to fully play out their effects on each other.'⁵²

Margaret Wheatley has noted that an organization can learn if it has the kind of information and relationships that make its experience available to itself, if it "can access itself everywhere to learn from its own experiences, and if it has a culture that supports actions followed by reflection, rather than analysis that never ends, or actions that are never understood."⁵³ In her analysis of the United States

Army, she finds many of the learning capacities that would be expected of a learning organization: a desire to expand and liberate knowledge; the creation of new information for dissemination; a weaving together of people who were formerly isolated; the creation of new relationships with former outsiders; a realization that the organization is in a period of great change; and the building of new traditions from its present activities.⁵⁴

Specifically, she points to three processes that bear the characteristics of learning activity. The first of these is the "after-action review" process that is conducted at the Army's premier training centers and the critical analysis of training and other activities that occurs routinely now within the ranks during wartime and peacetime. The second process is the Army's Louisiana Maneuvers simulations and the creation of the Battle Laboratories. The third is the Army's integrated effort to move the Army into the twenty-first century with its Force XXI digitization efforts and command structures.⁵⁵

If one analyzes this example along Senge's lines, one can see that the Army's efforts are the product of *systems thinking* and a desire to see the whole picture. They also represent a *shared vision* of what the Army of the future will look like and produce *mental models* that are malleable to the influence of input from a variety of sources. Moreover, each of these efforts is geared toward *team learning*, and the methodical pace of the processes allows room for dialogue and reflection. The *personal mastery* involved stems from the Army leadership's continual clarification and deepening of that vision and focusing energies into directions that will produce productive and realistic results. In each of these ways, the Army has laid the foundation to become a learning organization, but at this point the vision resides primarily at the top of the pyramid, rather than at the

bottom. As Force XXI digitization progress and experiments continue at the National Training Center, information sharing must occur at all levels to allow the vision to take hold and transform the organization.

X. Strategic Leader Responsibilities for the Future

To create a learning organization, strategic and operational leaders must recognize their responsibility to hold the organization together by developing a shared and clearly defined sense of direction -- their vision for the future.⁵⁶ The leader's vision must remain clear even as the organization changes its structure and implements new management concepts. At times, this might mean that the leader must relinquish control of some elements of power to allow the vision to succeed. In the examples of quality circles, TQM and the learning organization, the focus is on what Peter Senge calls "localness," or allowing subordinates to solve problems at their level.⁵⁷ In such a case, the leaders role is to enhance the organization's capacity for learning, promote a shared vision, to dialogue, and to be willing to give up control from the top. This is easier said than done. Even leaders at strategic levels often become embroiled in problems that should be dealt with at some lower level in the organization. According to Senge, only "complex, dilemma-like" problems should reach the top.⁵⁸

The strategic leader for any organization also needs to be the chief architect of organizational policy and core values. The leader must work extremely hard through personal example to become the steward of the vision, and a teacher of those influenced by the vision. This process of building shared vision and systems thinking will help build the mental models that are necessary at all levels of the organization. Senge notes that a great many "charismatic" leaders

often manage almost exclusively at the level of events -- dealing with *visions* and *crises*, and little in between.⁵⁹ This tendency to blur the vision through micro-management of problems and a failure to empower employees usually breeds the type of cynicism that more than likely did great damage to the quality circle and TQM efforts that experienced premature failure.

The key for the strategic leader is to overcome systematically generated crises to allow the other elements of the learning organization to work. In the United States Army, that means understanding the strategic context in which it operates -- such as the end of the Cold War, the struggle for democracy in Eastern Europe and in Central and South America, the diminution of a monolithic nuclear threat, the rise of Asian economic powers, and the globalization of the world economy. It also means understanding the political environment in which it operates -- domestic deficit pressures and a movement toward balanced-budget legislation, a potential further reduction of military forces, an increased emphasis on joint operations, and a decentralization of power from Washington to the geographic Commanders-in-Chief.

Lastly, the Army's strategic leadership must seek to avoid the learning disabilities that Senge notes will dampen the ability of the organization to become a true learning organization. These include a lack of systems thinking due to positional rivalry, a perception that the "enemy" is out there waiting to attack the Army's resources rather than focusing the effort within, and a reactive rather than proactive approach to events. Worse yet is a fixation on the event of the day, whether it is a budget crisis or an intervention in Bosnia-Herzegovina, a failure to react to gradual change until it is too late, or the failure to see the long range effects of decisions made at the top of the organization.⁶⁰

XI. Conclusion

If ever there was a moment in history when a comprehensive, strategic view of leadership was needed, not by a few leaders in high office, but by large numbers of leaders in every job, from a the factory floor to the executive suite ... this is certainly it.⁶¹

(Warren Bennis and Burt Nanus, Leaders)

Leaders create and manage culture. They analyze the current situation and their own organizational history, then formulate strategies to effect change.⁶² They establish direction and motivate people to improve the organization's competitive position. Max DePree has said that leaders must liberate people to do what is required of them in the most effective and humane way possible, to enable them to realize their full potential.⁶³

The organization of the twenty-first century will have to adapt to rapid technological change and the globalization of the work force and work processes. These changes will force management toward structural models that will rapidly transmit information about the environment and the market vertically and horizontally. As the organization evolves, it will eventually look less and less like a traditional hierarchy.⁶⁴ As Casey Stengel used to say, "The future ain't what it used to be."

The good news is that there are a number of methods, tools, and ideas to help strategic leaders set a course for this complex future. These include quality circles, the TQM movement and learning organizations. Each offers new ways to think about the organization, and powerful tools to guide organizational change. QCs, TQM and LOs have produced successful results in both public and private sector organizations when introduced by enlightened leadership in a supportive

organizational climate. Benefits have included monetary gains and enfranchisement of employees in the short run, and the shaping of organizational culture to survive in the long run.

Leadership is the art of transmitting a vision to the people in the organization and knowing when and where to apply the theory. It is a natural complement to the powerful science of the methods and tools of the quality movement and learning organizations. As this paper has tried to point out, *the key for leaders is to understand how QC_s, TQM and LO_s can be part of a vision to enhance organizational change to meet the challenges of an uncertain future.* Leaders should know about these concepts and their potential, and should integrate them where possible into their vision for the organization.

If leaders in business and government can do this -- create a vision and provide a climate where the methods of QC_s, TQM and learning organizations can flourish -- they will increase their chances to successfully lead their organizations through the increasingly competitive and dynamic environment of the twenty-first century. If not, it is a safe bet that there will probably be *learning organizations* waiting to take their place.

XII. Endnotes

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